

The background image is a landscape photograph. It shows a steep, rocky hillside in the upper half, with patches of green and brown shrubs. Below the hillside, there's a small, calm pond or wetland area. The foreground is dominated by tall, vibrant green grass and reeds that grow along the water's edge. The water in the pond is dark and reflects the surrounding greenery. The overall scene is a natural, somewhat rugged environment, likely a restoration site.

La Jolla Band of Luiseño Indians

Wetlands Restoration and Demonstration Project

La Jolla Band of Luiseño Indians

Wetlands Restoration Project

- La Jolla has 20.6 acres of NWI wetlands
- Most wetlands are along the San Luis Rey River with additional wetlands along tributary streams
- The Tribe recognizes the value and cultural significance of wetlands
- Creation of a floristic collection database with cultural relevance
- The wetlands restoration area is about 0.34 of an acre or 14,826 ft
- The wetlands is located in the La Jolla Campground, which created some challenges

Location of the Wetlands Restoration Project



La Jolla Wetlands Restoration Project



0 30 60 120 180 240 Feet

La Jolla Reservation



0 0.5 1 2 3 4 Miles

- San Luis Rey River
- Wetlands Area
- Informative Displays

This map was produced by the La Jolla Environmental Office. All information is confidential to the La Jolla Band of Luiseño Indians and cannot be distributed or reproduced without the written consent of the La Jolla Tribal Council.

Created by Tony Caputo 8/2008



La Jolla Band of Luiseño Indians Wetlands Restoration Accomplishments

- Contributed to the floristic collection of 99 plant species
- Floristic display in Tribal Hall
- Created a Timbercrete perimeter Fence
- Wetlands Educational Signs
- Invasive species eradication
- Community outreach
- Collaboration with NRCS



Native and non-native plant inventory done with the help of NRCS

Wetland Plants:

- California blackberry (*Rubus ursinus*)
- Red willow (*Salix laevigata*)
- Arroyo willow (*Salix lasiolepis*)
- Mule fat (*Baccharis salicifolia*)
- Lovegrass sedge (*Cyperus eragrostis*)
- Cluster dock (*Rumex conglomerates*)
- Cattail (*Typha angustifolia*)
- California hedge nettle (*Stachys bullata*)

Trees on periphery and interior of wetland area:

- Coast live oak (*Quercus agrifolia*)
- California sycamore (*Platanus racemosa*)
- Flowering ash (*Fraxinus dipetala*)
- Poison oak (*Toxicodendron diversilobum*)

Non-native & Invasive Weeds:

- Tree Tobacco (*Nicotiana glauca*)
 - Mustard (*Hirschfeldia incana*)
 - Sweet Fennel (*Foeniculum vulgare*)
 - Poison Hemlock (*Conium maculatum*)
 - Thistle (*Carduus pycnocephalus*)
 - Bermudagrass (*Cynodon dactylon*)
 - Rabbitfoot (*Polypogon monspeliensis*)
- I. NRCS also gave corresponding pictures of each native and non-native plant
 - II. A description of each plant
 - III. What time of the year that it is identifiable
 - IV. How to best remove the non-native plants in the wetlands

La Jolla Wetlands Plants Floristic Collection

Collection was verified by the San Diego Natural History Museum
Contains latin, common and Luiseno names, location & date collected,
and known traditional uses

La Jolla Band of Luiseno Indians		on display in Tribal Hall					
Wetlands Program - Floristics Collection		Confirmed by John Robman, Ph.D., San Diego Natural History Museum					
Specimen #	Common Name	Botanical Name	Luiseno Name	Date Collected	Location Collected	Known Uses	
1	Arroyo Willow	Salix lasiolepis		Apr-04	San Luis Rey River	Tea of bark induces sweating, also for colds and for fiber, cordage	
2	Basket Rush	Juncus textile		Jun-04	Campground	Most important rush for basket making, native plant found only in wetlands	
3	Big Sagebrush (d)	Artemisia tridentata		Aug-04	San Luis Rey River	Headaches, sores, diarrhea, purify air, many uses	
4	Mexican Tree	Chenopodium ambrosioides		Mar-04	San Luis Rey River	Tea used for worms, headaches, tooth aches and many other problems	
5	Birds Foot Cliff Brake (Tea Fem)	Pellaea mucronata	Wikunmal			Fronde steeped as a beverage	
6	Black Medic	Medicago lupulina		Mar-04		Antibacterial for TB, soothing tea	
7	Black Mustard	Brassica nigra				Edible, introduced from Europe, highly invasive	
8	Field Mint (d)	Mentha arvensis		Aug-04	San Luis Rey River	Numerous medicinal uses, esp. stomach ache, respiratory problems	
9	Buck Brush	Ceanothus cuneatus		May-04	Slopes above San Luis Rey River	Note the distinctive 3-pointed small fruit	
10	Bull Thistle	Cirsium vulgare					
11	Bush Monkeyflower	Mimulus aurantiacus				Used for kidney, bladder problems, stomach aches, eyewash for sore eyes	
12	California Blackberry (d)	Rubus ursinus	Pikwax			Edible berries	
13	California Coffeeberry (d)	Rhamnus californica		Jun-04	Cedar Creek		
14	California Sagebrush	Artemisia californica	Hulul	Mar-04	San Luis Rey River	Leaves smoked or chewed with tobacco to relieve colds	
15	California Wood Fern	Dryopteris arguta		Apr-04	San Luis Rey River		
16	Canyon Live Oak	Quercus chrysolepis	Wiat	Apr-04	Near Kyse	Acorns esteemed for wiwish, gambling toy made from large acorn cups	
17	Cocklebur	Xanthium strumarium		May-04	San Luis Rey River	Costanoan: edible seeds ground for mush, medicinal & ceremonial uses, invasive, Mahuna: Kidneys, TB & VD	
18	Caterpillar Scorpionweed	Phacelia cicutaria		Jun-04	Cedar Creek		
19	Chain Fern	Woodwardia fimbriata				Important for baskets	
20	Rockweed (d) (d)	Ergonum				Cahuilla - shoots and seeds used for food	
21	Chia	Salvia columbariae	Pashal			Seeds mixed in water for soft drink, or a kind of gruel, high food value, easily digested	
22	Climbing Milkweed	Sarcostema cynanchioides ssp. Hartwegii		Apr-04	San Luis Rey River		
23	Coast Paintbrush	Castilleja affinis		Mar-04	San Luis Rey River	Parasitic on other plants' roots, Costanoan-powder or tea used to treat infected sores	
24	Common Celery	Apium graveolens	Paki			Edible greens, non-native	
25	Blue-eyed grass (d)	Scytinorchum bellum		May-04	San Luis Rey River	Roots used as a purgative	
26	Coyote Melon	Cucurbita foetidisima				Seeds roasted for food, ripe fruit and root used as soap	
27	Creek Monkeyflower	Mimulus guttatus				Tea used for back and muscle soreness, edible	
28	Datisca	Datisca glomerata		Mar-04	San Luis Rey River		
29	Bishop Lotus (d)	Lotus strigosus				Luiseno-Food plant used for greens	
30	Desert Marigold	Baileya multiradiata					
31	Dodder	Cuscuta salina		Apr-04	San Luis Rey River	Chewed stem juice or powdered plant for nosebleeds, taken for black widow bites, boiled for dye	
32	Engelmann (Mesa) Oak	Quercus engelmanni	Tovashal	Apr-04	Kyse	Little esteemed for food, fungus on decayed wood used for tinder	
33	Fiddleneck Phacelia	Phacelia californica		May-04	San Luis Rey River	Medicinal tea for fevers, coughs, colds, Edible	
34	Flat-top Pussies Toes	Antennaria corymbosa					
35	Flax	Linum lewisii				Medicinal as eyewash, for stomach ache, hairwash, seeds used as spice	
36	Fremont Cottonwood	Populus fremontii	Ayahut	Mar-04	San Luis Rey River	Wood used for arrow shafts, strong affinity for water useful for finding wet areas, inner bark for women's garment	
37	Fuchsia-Flowered Gooseberry	Ribes speciosum		Mar-04	San Luis Rey River		
38	Heart-leaved Penstemon (d)	Keckiella cordifolia		Jun-04	Cedar Creek	Infusion used as wash or poultice of plant applied to ulcers or skin	
39	Horned Pondweed	Zannichellia palustris		May-04	Below Kyse		
40	Horsetail (Gouring Rush)	Equisetum arvense		Apr-04	San Luis Rey River-Kyse	Strong diuretic, tea for kidneys, polishing items, stems used for straws, flutes, shoots nutritious	
41	Interior Live Oak	Quercus wislizeni	Imushla				
42	Jimson Weed (d)	Datura wrightii	Naktomush	Aug-04	San Luis Rey River	Luiseno-(Ceremonial Medicine) root juice used in boys puberty ceremony to induce stupefaction	
43	Lemonade Berry	Rhus integrifolia	Shoval			Berries eaten to quench thirst, lemonade-type drink, stems used in basketry	
44	Leopard Lily	Lilium pardalinum		May-04	Lower La Jolla Res San Luis Rey River	Roots steamed or baked & eaten, beautiful flower	
45	Lupine	Lupinus latifolius	Mawut				
46	Mariposa Lily (Sego Lily)	Calochortus nuttallii		Apr-04	Paradise Fire Burn Area	Important traditional food source, only larger bulbs were taken	
47	Marsh Hedge Nettle	Stachys palustris		May-04	Cedar Creek	Medicinal for colds, coughs, sores, & wound healing	
48	Marsh Pennywort	Hydrocotyle ranunculoides		Mar-04	San Luis Rey River		
49	Milkweed	Asclepias fascicularis	Tokmut or Patamkat			Sticky juice used for chewing gum, fiber, cleaning agent for wounds & glue for mounting jewelry	
50	Miner's Lettuce	Claytoniana (Montia) perfoliata		Mar-04	San Luis Rey River	Seeds harvested for food, important medicinal	
51	Mugwort (Wyd)	Artemisia douglasiana	Pa'aku or Pakoshish	Mar-04	San Luis Rey River	Diegano Drug-Infusion of leaves used as a wash or poultice of leaves applied to bruises, wounds, or insect stings	
52	Mule Fat (d)	Salicoidia		Jul-04	San Luis Rey River	Seeds eaten in phole, roots & leaves used medicinally for many things	
53	Mule's Ears	Wyethia mollis				Underground parts ground into meal, pollen used in cakes & mush, stalks for matting & bedding	
54	Narrow-leaf Cattail	Typha angustifolia					
55	Narrow-leaf Water Plantain	Alisma gramineum					
56	Oak Calf	Quercus dumosa Nuttall's Scrub Oak (Pawish)				Powerful astringent properties, used for diarrhea, dysentery or very dilute for sore eyes	
57	Palmate Coltsfoot	Petasites frigidus				Various medicinal uses	
58	Sandbar Willow	Salix exigua			San Luis Rey River		
59	Saintal	Imperata brevifolia		Jun-04	Third Gate, La Jolla Reservation	Native grass found in wet springs & meadows above 500 meters elevation	
60	Sierra Rush	Juncus nevadensis		May-04	San Luis Rey River		
61	Southern Maiden Hair Fern	Adiantum capillus-veneris L.		Mar-04	San Luis Rey River	Medicinal-cough, menstruation, antibacterial	
62	Sword Fern	Polystichum munitum					

Floristic Display



Wetlands Plants



Wetlands Demonstration Area in Campground – Public Outreach



Outreach to the Young Native Scholars Program

- Taking the Young Native Scholars on a tour of the wetlands area
- Teaching the kids about the traditional uses of wetlands plants by the Luiseno people.
- As well as plant identification with the students.



Perimeter Fencing

- We want a perimeter fence to keep people out of the wetlands
- Want it to look natural and blend in with the surroundings
- Want it to be durable, sturdy, and be able to last for a long time
- Low maintenance required

We want to avoid:

- Chain link fencing – not natural looking, takes away from the natural beauty of the wetlands
- Wood fencing – easily vandalized, rots, maintenance, and could be used as firewood
- Plastic fencing – can melt in a fire, easily breakable, and can be warped by the sun

New Wetlands Timbercrete Fencing



Wetlands Educational Signage

- The goals of wetland signs: EDUCATE! EDUCATE! AND EDUCATE!
- To inform and educate campers and tribal members about what is a wetlands
- Why and how wetlands are important in our environment
- To tell a story about the different native plants in the wetlands and how they were traditionally used by the Luiseno People
- It is a form of community outreach and education
- As well as something that will last and is not easily stolen or vandalized

Sample Wetlands Educational Sign



(x1) 15" x 20" Flat Porcelain Printed Sign

Tribal History

**California
Blackberry**
(*Rubus Ursinus*)
pikwla



The La Jolla Indian Reservation was established in 1875, over 130 years ago by executive order by the president of the United States, Ulysses S. Grant. However, the Luiseno people, traditionally known as the Payomkawichum, or People of the West, have lived in this region for at least 10,000 years. The traditional range of the Luiseno people was from the Warner Springs area to the east, up to at least the San Juan Capistrano area to the north, the Pacific Ocean to the west, and down to the Escondido area to the south.

Currently, the La Jolla Indian Reservation is a federal reservation of Luiseno Indians in Northern San Diego County, along the southern slopes of Mount Palomar, near the community of Valley Center. This reservation consists of 9,998 acres of Federal Land and around 702 enrolled Tribal Members. Much of the land is undisturbed and is located at the foothills of Palomar Mountain. Tribal government consists of a five member Tribal Council, with a Chairperson, Vice Chairperson, Secretary, Treasurer, and a Council Member.

The majority of the landscape consists of Oak trees, abundant wild flowers, sage and other indigenous plants. The Oak trees produced one of our major foods (one of our dishes made from the Acorn, we call will wish) that help sustain our way of life.

The La Jolla Band of Indians is a founding member of the Native American Environmental Protection Coalition, formed in 1994 with Tribal Leaders and Elders from Pauma, Pechanga, and San Pasqual. Formally established in 1997, NAEPC now has 12 member Tribes that work together in a coalition to educate and promote coordination of the members environmental programs. Please help in the care and respect of our Reservation.



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9040 Kenamar Dr. Suite 403
San Diego, CA 92121

tel: 858.566.3010
fax: 858.566.3080

www.MiramarSignWorks.com
info@MiramarSignWorks.com

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Sign Locations

- Use the resources we have
- Post signs to the rocks already near the wetlands area
- This will help minimize the visual impact and appear more natural
- More difficult to remove and steal if placed on rocks rather than a sign post

New Wetland Educational Signs placed on rocks



Butterflies and Birds in Wetlands



Questions?

